

REMARKS

Claims 13, 16-18, 20, 32, 35, 36 and 38-46 are pending. Arguments are presented in response to the Examiner's rejections stated in the non-final Office Action dated July 14, 2005. Accordingly, Applicant respectfully submits that the claims of the present application are in condition for allowance.

I. Claim Rejection under 35 USC §103(a)

In the July 14, 2005 non-final Office Action, the Examiner rejects claims 13, 16-18, 20, 32, 35, 36 and 38-46 under 35 USC §103(a) as being obvious over International PCT Publication No. WO 97/24484 of Kluft et al. in view of one or more of UK Patent Application No. GB 2,248,774 A of Barton et al., U.S. Patent No. 3,959,556 issued to Morrison, U.S. Patent No. 3,284,395 issued to Lowes, and UK Patent Application No. GB 2,309,461 A of Cox et al.

Applicant respectfully requests reconsideration of the above referenced §103(a) rejection and submits that the above referenced rejection should be withdrawn since there is no motivation in the prior art for combining the primary reference, Kluft et al., with any of the secondary references, Barton et al., Cox et al., Morrison or Lowes.

The Examiner has previously relied on Kluft et al. in rejections during the prosecution of the present application. Applicant has successfully overcome a §102(b) rejection recited in a first non-final Office Action issued on September 16, 2002 and §103(a) rejections based on a combination of Kluft et al. with U.S. Patent No. 4,442,091 issued to Lebrun et al. in the September 16, 2002 Office Action and a Final Office Action issued on April 11, 2003. In addition, Applicant has shown with test evidence that a fabric sample made according to Kluft et al. was no more effective at controlling the proliferation of bed mites than a control sample of fiber containing no fungicide or biocide. (See results for Fiber Sample Ref. 03226

discussed in Applicant's Declaration executed March 24, 2004 and submitted to the U.S.

Patent and Trademark Office with Applicant's Supplemental Response on April 8, 2004.)

As the Examiner may recall from past responses, Kluft et al. describes a process of applying a mixture of acaracide, biocide and fungicide to pre-existing fibers using a binder to secure the acaracide, biocide and fungicide to the pre-existing fibers as a coating on the pre-existing fibers. Kluft discloses the use of perflourinated acrylic compounds for a binder. (See page 6, line 17, of the English translation of Kluft et al.) Such compounds are well known as textile finishes for imparting a level of water-repellence to fabrics.

In Applicant's Declaration executed on January 12, 2004 and submitted to the U.S. Patent and Trademark Office with Applicant's Supplemental Response on January 22, 2004, Applicant states that it is desirable to avoid applying such a finish (ie., perflourinated acrylic compounds) onto the surfaces of fibers used to making bedding articles because they diminish the soft fiber handle which is desired for bedding articles. In addition, Applicant states in this Declaration that he was not convinced that the Kluft product would be effective in fungicidal activity against the *Aspergillus* species of fungi necessary to impact on mite proliferation.

(This was later proved with test evidence provided by the second Declaration cited above.)

Applicant also states in the Declaration that he was fully acquainted with the World markets for anti-mite bedding products and fibers for use in such products based on the commercial activities of his company Acordis in this field and that he never saw a commercial product of the type to which the Kluft et al. International publication described. (Of course, there is believed to have been no commercialization of the Kluft et al. product because it does not work.)

Based on the evidence submitted in the pair of Declarations previously provided to the Examiner in early 2004, Applicant submits that Kluft et al. fails to disclose a bedding product

or fiber that can successfully control the proliferation of house dust mites and bed mites.

Accordingly, one of skill in the art would avoid using the teachings of Kluft et al. since its proposed process and fabric simply fail to achieve their intended result.

Turning to the secondary references cited by the Examiner, Barton et al. describes a hospital bed mattress cover that prevents cross-infection when the bed is used by successive patients. See page 1, lines 6-7, of the Barton et al. reference. The cover prevents bacteria from passing into the mattress while it allows water vapor, but not liquids, to pass through the cover into the mattress to preserve patient comfort. Barton et al. fail to disclose anything with respect to controlling fungicidal activity and the proliferation of bed mites.

In re Shafer, 108 USPQ 326-329 (C.C.P.A. 1956), states the requirements for a proper combination of references, as follows:

“... to determine whether the combination is proper, the following criterion is often used: namely, whether the prior art suggests doing what an applicant has done. ... it is not enough for a valid rejection to view the prior art in retrospect once an applicant’s disclosure is known. The art applied should be viewed by itself to see if it fairly disclosed doing what an applicant has done. If the art did not do so, the references may have been improperly combined. ...

... In fact, a person having the references before him who was not cognizant of appellant’s disclosure would not be informed that the problem solved by appellant ever existed. Therefore, can it be said that these references which never recognized appellant’s problem would have suggested its solution? We think not ...”.

Utilizing the reasoning and language of In re Shafer, it is clear that the prior art, Kluft et al. and Barton et al., when viewed by itself, does not fairly disclose or suggest what the Applicant has done. (The product/process of Kluft et al. has been shown to be ineffective, and Barton et al. fail to even recognize the problem to which the present invention is directed.) In addition, since Barton et al. fail to recognize the problem addressed by the present invention, how can it suggest its solution?

Applicant respectfully disagrees with the Examiner's statement on page 5 of the Office Action that states "Kluft showed superior initial efficacy". (See the results for Fiber Sample Ref. 03226 discussed in Applicant's Declarations.) The Applicant's Declarations clearly prove that the Kluft et al. fabric (Sample Ref. 03226) was ineffective against the specified Aspergillus species of fungus, and therefore ineffective to prevent bed mite proliferation, both from the start and after laundering. Thus, the Kluft et al. fabric sample clearly did not show "superior initial efficacy".

Further, Applicant respectfully disagrees with the Examiner's statement on page 5 of the Office Action that states the "lesser longevity, of a coated rather than impregnated active" is "expected". Kluft et al. clearly does not state this; it only discloses the use of a water-repellant resinous coating/binder. Barton et al. also provides no such comment about longevity.

Still further, Applicant respectfully disagrees with the Examiner's conclusion that Barton et al. show "the equivalence of a coated fiber versus spinning the fiber from a dope with biocide". Kluft et al. does not show an effective method for preventing the proliferation of bed mites and their Aspergillus allies. Barton et al. cannot show equivalence with respect to Kluft's fabric in relation to controlling bed mites and their Aspergillus allies since Barton et al. is directed to providing a solution to an entirely different problem. Barton et al. fail to address bed mites and their Aspergillus allies. Even if Barton's fiber making processes are considered equivalent, one of skill in the art would reason that a fiber formed by an equivalent process would be ineffective at preventing the proliferation of bed mites for the same reasons that Kluft's so-called equivalent fiber failed. Accordingly, Applicant submits that the Kluft et al. and Barton et al. references do not fairly disclose that fiber spun from a dope with biocide is effective at controlling bed mites and their Aspergillus allies.

With respect to the other cited secondary references, the Lowes patent discloses the use of blankets that inhibit the growth of bacteria, the Morrison patent discloses the migration of biocidal properties in a yarn to natural fibers; and the Cox reference discloses the prevention of mildew and odor problems in connection with socks, athletic apparel, awnings and tents. Similar to Barton et al., all these references fail to disclose a method of controlling the Aspergillus species of fungus and bed mites. Thus, the same reasons stated above with respect to the patentability of the claims of the present application over Kluft et al. in view of Barton et al. apply to the rejections based on Kluft et al. in view of any combination of the secondary references cited by the Examiner.

As an additional reason for withdrawing the above referenced rejection, Applicant submits that the present invention is unobvious because there has been a long need for a solution addressed by the present invention, no one has been able to provide an effective solution to the problem addressed by the present invention, and the present invention has enjoyed immediate commercial success.

The problem of controlling bed mites with anti-mite bedding products has been long desired as evidenced by the Kluft et al. and Lebrun et al. prior art references. However, as stated above, nobody has effectively solved this problem in a practical and commercially acceptable manner. As discussed in past responses, Lebrun requires topical application of a fungicide on bedding products after each laundering. Kluft et al. does not require repeated topical applications after each laundering; however, it has been shown to be ineffective, initially and after laundering, at controlling the Aspergillus species of fungus and bed mites. (See Applicant's previously filed Declarations.) Applicant also states in the Declaration that he was fully acquainted with the World markets for anti-mite bedding products and fibers for use in such products based on the commercial activities of his company Acordis in this field

and that he never saw a commercial product of the type to which the Kluft et al. International publication describes.

Although others have failed, the process and products according to the present invention have had immediate commercial success. (See the evidence in Applicant's previously filed Declarations.) Since the Applicant's invention has enjoyed immediate commercial success and since the problem has been recognized for a long time without being solved, Applicant respectfully submits that this in itself establishes that the present invention as claimed in the present application is not obvious in view of the prior art references cited by the Examiner.

Accordingly, for the above stated reasons, Applicant respectfully requests reconsideration and removal of the above referenced §103(a) rejections.

II. Claim Rejections under 35 USC §102(a)

In the Office Action, the Examiner rejects claims 13, 16-18, 20, 32, 35, 36 and 38-46 as being anticipated under 35 USC §102(b) in view of published UK Patent Application GB 2309461 of Cox et al. "with evidence shown by Kluft"

As discussed in previous responses, the inventor of the present application, Roland Cox, is the lead inventor of GB '461. The disclosed fibers were specifically developed for use in making yarn for socks. The GB '461 Cox reference also discloses use of the fibers in connection with athletic apparel, awnings and tents where sweat and/or rain can lead to fungal growth and odor problems.

The GB '461 reference fails to disclose a method for controlling house dust mites and bed mites, or anything with respect to controlling house dust mites or bed mites. Further, the GB '461 Cox reference fails to disclose a method step of preventing dead skin fragments

from being converted into a suitable house dust and bed mite food source. (See claim 46 of the present application.)

The GB '461 Cox reference is only concerned with the manufacture of textile articles that are subjected to great amounts of sweat and rain. For instance, the GB '461 Cox reference discloses sweat socks and athletic apparel that are subjected to great amounts of sweat and perspiration when worn by an individual and outdoor awnings and tents that are subjected to rain, snow and other precipitation. Fine domestic articles of bedding, upholstered articles and carpets are not subjected to great amounts of sweat and rain and are, in fact, ruined when subjected to great amounts of sweat and rain. In addition, the products that the GB '461 Cox reference does recite are clearly not products in which there is a potential mite problem. Further, there is no indication in the GB '461 Cox reference that textile articles in which mites proliferate could usefully be made from the fibers of the GB '461 Cox reference. (For instance, see the discussion below with respect to the *Aspergillus niger* fungus.)

The GB '461 Cox reference fails to disclose the specific method step of controlling fungi of at least one of the groups *Aspergillus glaucus* and *Aspergillus restrictus*, which is required to prevent dead skin fragments from being converted into a suitable house dust mite and bed mite food source. The inventors of the GB '461 reference did not contemplate using fungicidal fibers for uses where house dust mites or bed mites proliferate, and one of ordinary skill in the art would have no reason to believe that such fibers would be effective in controlling house dust mites and bed mites.

For example, the GB '461 Cox reference discloses that the fungicidal fibers are effective on *Aspergillus niger* fungus. (See pages 5 and 6 of the GB '461 reference.) However, *Aspergillus niger* fungus is not known to aid in the nourishment of house dust

mites or bed mites; rather, they are known to have “an unfavourable influence on mites”. (See column 3, lines 19-25, of U.S. Patent No. 4,442,091 issued Lebrun et al., which was previously cited by the Examiner.) Thus, the GB ‘461 reference teaches away from the present invention, since one of skill in the art would not necessarily want to aid the proliferation of mites by removing a fungus, Aspergillus niger fungus, that is believed to have an unfavorable influence on mites. Thus, the GB ‘451 reference provides no fair disclosure or suggestion of a method for preventing house dust mite and bed mite proliferation.

In fact, the Examiner himself has previously admitted that the GB ‘461 Cox reference does not anticipate claim 13 of the present application. To this end, in the FINAL Office Action for the present application dated April 11, 2003, the Examiner states:

“... Applicant’s arguments have been persuasive, and we agree the methods of claim 13 not anticipated by Cox, absent mite address.”
[Emphasis added.]

A claim of a patent application can be anticipated under 35 USC §102 only if each and every element is found described in a single prior art reference. The identical invention must be shown in as complete detail as contained in the claim. The elements identified by the reference must be arranged as required by the claim. If a prior art reference relied on in a rejection made under §102 does not contain every element recited in the claim in as complete detail as is contained in the claim and arranged as recited in the claim, the rejection is improper.

The GB ‘461 Cox reference fails to contain every element recited in the claims of the present application in as complete detail as is contained in the claims in the present application and arranged as recited in the claims of the present application. Accordingly, for reasons previously determined by the Examiner and for all the reasons stated above,

Applicant respectfully submits that the claims of the present application are not anticipated under §102(b) by the GB '461 Cox reference.

Conclusion

In view of the above remarks/arguments, Applicant respectfully submits that the rejections have been overcome and that the present application is in condition for allowance. Thus, a favorable action on the merits is therefore requested.

Please charge any deficiency or credit any overpayment for entering this Response to our deposit account no. 08-3040.

Respectfully submitted,
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